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# The Future Hospital: a blueprint for effective delirium care

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## ABSTRACT

Delirium remains the most common hospital complication. Occurrence rates are set to rise as the population ages and, despite being preventable and treatable, delirium continues to be under-recognised. Given the adverse outcomes associated with delirium and the considerable financial burden, patients with delirium must be considered 'core business' for 21st century hospitals. We propose that the principles of care outlined by the Future Hospital Commission report provide an ideal blueprint for effective, evidence-based delirium prevention and management. In this context, we outline practical advice for clinicians to improve standards of care for patients with delirium in hospitals. Because negative cultural attitudes, coupled with a lack of ownership towards this highly complex group, remain a major challenge, we consider novel educational interventions that empower the multidisciplinary team. Further, improved outcomes for patients with delirium are likely to translate to wider benefits for the hospital population at large.

**KEYWORDS:** Acute hospital, confusion, delirium, education, Future Hospital report

## Introduction

In this opinion article, we consider delirium and its central relevance to the future hospital. We contend that the principles of care described by the Future Hospital Commission provide an ideal blueprint for effective in-hospital delirium care, which is arguably 'core business' for 21st century hospitals. Moreover, we detail the extent of overlap between the principles of effective and evidence-based delirium prevention and management and the Future Hospital Commission's principles of care. We also provide practical advice for clinicians to help drive up standards of care for patients with delirium in their hospitals. Finally, since poor recognition and negative attitudes towards the highly complex delirious patient remain a major challenge, we consider evidence-based teaching interventions that might be employed to drive up the quality of delirium care.

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## Box 1. Diagnostic and statistical manual of mental disorders, 5th edition (DSM 5): criteria for delirium.<sup>1</sup>

- A Disturbance in attention (ie reduced ability to detect, focus, sustain and shift attention) and awareness (reduced orientation to the environment).
- B The disturbance develops over a short period of time (hours to a few days), represents an acute change from baseline attention and awareness, and tends to fluctuate in severity during the course of a day.
- C An additional disturbance in cognition (eg memory deficit, disorientation, language, visuospatial ability or perception).
- D The disturbances in criteria A and C are not better explained by a pre-existing, established or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal, such as coma.
- E There is evidence from the history, physical examination or laboratory findings that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal (ie due to a drug of abuse or medication) or exposure to a toxin or multiple aetiologies.

## Delirium: 'core business' for the 21st century hospital

Delirium is a severe neuropsychiatric syndrome characterised by acute and fluctuating inattention and other cognitive and perceptual deficits, precipitated by physical illness or medications (Box 1).<sup>1</sup> One in five hospital inpatients have delirium,<sup>2</sup> making it the most common complication in hospitals. Delirium is considerably more common in older people and those with dementia. Thus, given the ageing population, rates of in-hospital delirium, both prevalent (present on admission) and incident (developing while in hospital), will rise.

Delirium is far from a benign condition. Specifically, it is independently associated with adverse outcomes, including institutionalisation and mortality, and hospital-acquired complications, such as falls and pressure sores.<sup>3</sup> There is also increasing recognition of the significant patient and carer distress associated with the condition, as well as the long-term cognitive sequelae.<sup>4</sup> Delirium is therefore a costly condition, with its complications estimated to account for additional healthcare costs of £13,000 per admission.<sup>5</sup>

Delirium is not, however, an inevitability of increasing numbers of hospitalised older patients and systematic review

evidence suggests that delirium is preventable in a third of cases.<sup>6</sup> The high prevalence of delirium, its associated morbidity and mortality, and the significant financial implications that accompany it form the basis of our assertion that delirium should be considered ‘core business’ for 21st century hospitals.

### Relating the Future Hospital Commission’s principles of care to delirium care

‘Patients have effective and timely access to care’ and ‘Fundamental standards of care must be met’

Delirium is under-diagnosed and under-recorded – particularly in hypoactive delirium, which is characterised by people becoming withdrawn and sleepy. Some staff may erroneously attribute symptoms to dementia, depression or, more worryingly, some may assume they are ‘normal’ for older people in hospital. Even if delirium is recognised, there is often a failure to recognise that the condition represents a medical emergency, meaning that patients may not receive effective or timely access to appropriate care. Poor recognition remains a huge hurdle to improving the care of people with delirium and is associated with worse outcomes. Therefore, the detection of delirium, and the initiation of an appropriate care plan, should be considered an essential standard of care for hospital inpatients and embedded within ward practices.

The implementation of a validated screening tool can provide a structured framework for staff to employ when assessing patients, and may help to raise the profile of delirium among health professionals. Validation of the ‘4AT’ is ongoing but this screening tool is appealing because of the need for only limited training, its brevity and the inclusion of options for patients where cognitive testing or interview is not possible because of drowsiness or agitation.<sup>7</sup> Such tools can be incorporated into hospital clerking documents or, as in hospitals in Holland, embedded into routine nursing practice using a tool such as the Delirium Observation Screening Scale.<sup>8,9</sup>

‘Care is designed to facilitate self-care and health promotion’

Facilitating self-care is challenging, since delirious patients may lack insight into their health problems; however, there is clear scope to drive health promotion in this area. For a condition with such high prevalence, there is a notable lack of awareness of the condition among the public, highlighted by the absence of a dedicated patient association. For patients with delirium to have access to the timely care they require, there needs to be a rise in public awareness and a significant shift in attitudes. Firstly, education needs to be provided to the general public to promote awareness and understanding of delirium as an entity; secondly, the problem needs to be reframed as an emergency, the presence of which should prompt urgent review by a health professional. Strategies to improve the recognition of delirium include patient information leaflets, teaching videos involving carers and patients, and public lectures and awareness events.

‘Good communication with and about patients is the norm’

Poor communication has been identified as a significant barrier to improving delirium care. Because of the challenging nature

of history taking from patients with delirium, particularly in the absence of a collateral historian, patients are not infrequently termed ‘poor historians’ – this can be considered a pejorative term and use of this term should be avoided, since it may delay or prevent accurate diagnosis.<sup>10</sup> The challenge of interacting with delirious patients may be compounded by a lack of training in this area – teaching communication to the confused patient remains the white elephant of undergraduate curricula. Evidence suggests that interactions with cognitively impaired patients for training purposes can be replicated within a simulated environment and can provide a powerful learning experience and a potent prompt for reflection.<sup>11</sup>

Delirium is, by its very nature, evanescent; patients may vary greatly between shifts and thus effective communication between teams is essential for detection. It is important that staff of all levels recognise the importance of handing over details such as disturbances in behaviour or conscious level in order to highlight the possibility of delirium. Staff members who may not routinely be included in handovers, such as healthcare assistants and domestic staff, are often best placed to recognise these changes, as they may have the most contact time with patients. Empowering all members of the healthcare team to communicate even subtle alterations in patients is challenging; some may feel it is not their role to do so and some may feel intimidated by other team members. Developing a mechanism to facilitate the contribution of all staff to clinical dialogue is essential for quality delirium care. This may be achieved by promoting interprofessional education, which has been shown to improve patient outcomes in delirium care, perhaps through flattening of the traditional hierarchy within teams.<sup>12</sup>

‘Staff are supported to deliver safe, compassionate care and are committed to improving quality’

At the heart of providing compassionate delirium care is the need for staff to take ownership of the management of such patients. Negative attitudes towards delirious patients are prevalent among hospital professionals, with such patients sometimes termed ‘difficult’ or ‘not my area of expertise’, rather like the intoxicated patient may be disowned in the accident and emergency department.<sup>13</sup> This lack of ownership, and a failure to engage with the patient on a personal level, may exacerbate the patient’s fear and anxiety, which may further compound the lack of ownership. Negative attitudes towards such patients are also recognised at managerial level where patients with delirium may be seen as ‘bad for business’.<sup>13</sup> Thus, engagement of managerial colleagues and ‘buy-in’ at an organisational level is essential if the quality of delirium care is to be improved trust-wide.

‘Patient experience is valued as much as clinical effectiveness’

Delirium can be extremely distressing for the patient experiencing it, for their relatives and also for members of the healthcare team. Patient and carer distress is a significant unmet need as documented by the harrowing accounts of survivors of delirium, some of whom latterly experience post-traumatic stress disorder. An understanding among staff that delirium is frightening may help to break the vicious cycle of the agitated patient with delirium being labelled as a nuisance,

**Table 1. Principles of effective and evidence-based delirium prevention and management.**

Future Hospital Commission's principles of care	Relevance to delirium	Potential interventions
Fundamental standards of care must always be met Patients have effective and timely access to care, including appointments, tests, treatments and moves out of hospital	Delirium is under-recognised, preventing patients from receiving appropriate care	Implementation of a validated screening tool
Care is designed to facilitate self-care and health promotion	There is a notable lack of awareness of delirium among the public consciousness	Patient information leaflets, teaching videos involving patients and carers, public lectures and awareness events
Good communication with and about patients is the norm	Poor handover between staff regarding patients with delirium prevents its recognition. Patients with delirium may be labelled as 'poor historians'	Interprofessional education regarding delirium and simulation training for patients with delirium can provide a powerful learning experience and prompt for reflection
Staff are supported to deliver safe, compassionate care, and are committed to improving quality	Negative attitudes and a lack of ownership may exacerbate the patient's fear and anxiety	Patient and public involvement within interprofessional teaching interventions is a powerful potential method for driving attitudinal change
Patient experience is valued as much as clinical effectiveness	Delirium is distressing for patients, carers and healthcare professionals	
All patients have a care plan that reflects their individual clinical and support needs	Delirium has many causes and so targeted interventions to prevent and treat delirium must be tailored to individual patients	Relatives can play a vital role, facilitated by encouraging more open visiting and by completing a tool, such as the Alzheimer's Society 'This is me'
Patients do not move wards unless it is necessary for their clinical care	Changes in environment can cause disorientation and may contribute to delirium	Those with or at high risk of delirium should be highlighted as inappropriate candidates for boarding
Robust arrangements for the transfer of care are in place	Delirium is associated with an increased risk of incident dementia	Robust communication between secondary and primary care, including using the term 'delirium', helps to highlight those who may need further follow up regarding their cognition following discharge

and staff failing to take ownership and simply wishing for the patient to be removed.<sup>13</sup> Changing attitudes towards delirium is therefore critical.

A systematic review by Yanamadala and colleagues<sup>14</sup> supports this assertion; teaching interventions on delirium that address deeper attitudinal learning outcomes were found to positively influence detection rates of delirium, but teaching that addresses knowledge and skills outcomes was not associated with increased detection rates.<sup>14</sup> Patient and public involvement within teaching is a powerful potential method for driving attitudinal change – we would encourage clinicians to incorporate the emotive accounts of patients describing their experiences of delirium, such as that freely available on the European Delirium Association website ([www.europeandeliriumassociation.com/patient-video.html](http://www.europeandeliriumassociation.com/patient-video.html)), into teaching.

'All patients have a care plan that reflects their specific clinical and support needs'

This particular recommendation echoes the National Institute for Health and Care Excellence quality standards for delirium,

which state that targeted interventions 'should be tailored to each person's needs, based on the results of an assessment for clinical factors that may contribute to the development of delirium'.<sup>15</sup> These interventions include reorientation, therapeutic activities, rationalisation of medications, early mobilisation, promotion of sleep, maintenance of adequate hydration and nutrition, and provision of vision and hearing adaptations.

The successful implementation of such interventions requires high-quality, multidisciplinary care tailored to the individual, delivered by all members of the team in a coordinated and supported manner, ie high-level teamwork. Crafting a collaborative person-centred care plan, as opposed to employing a generic delirium 'care bundle', requires professionals to have a degree of insight into the life and interests of the person who is experiencing delirium. Recognising the important role that relatives can play is vital and may be facilitated by encouraging more open visiting and by encouraging the completion of a simple tool, such as the Alzheimer's Society 'This is me', which enables staff to appreciate the patient's needs, preferences, interests, likes and dislikes.<sup>16</sup>

'Patients do not move wards unless this is necessary for their clinical care'

It is recognised that minimising environmental change helps to maintain orientation of patients and may contribute to prevention of delirium.<sup>17</sup> Previous qualitative research has identified that the central object of care in terms of managing the delirious patient is to learn about the patient at all levels (individual, ward and systems).<sup>18</sup> Frequent moves undermine this and thereby will inevitably compromise the care of the delirious patient as staff inevitably lose key knowledge as a result of moves between wards. Therefore, it is vital that those with delirium, or those at high risk of developing it, are highlighted as inappropriate candidates for boarding and are only moved if it is deemed absolutely essential for their clinical care. Given the current bed pressures facing the NHS, maintaining such a standard is clearly challenging.

'Robust arrangements for transferring of care are in place'

Emerging literature indicates that delirium is not as transient as previously thought and is associated with an increased risk of dementia, as well as acceleration of existing cognitive decline in those with dementia.<sup>4</sup> Therefore, robust communication between secondary and primary care in the form of accurate discharge summaries, which include the term 'delirium' as a medical diagnosis, is essential to facilitate follow-up by the GP or specialist memory services.

### Wider impact of good delirium practice

By first addressing the care of patients with delirium, other interventions to reduce serious outcomes, such as falls and pressure sores, are more likely to succeed. For example, delirium is the number one predisposing factor for falls and rates of falls were reduced by 64% when multicomponent non-pharmacological delirium interventions were implemented.<sup>19</sup> To this effect, Inouye *et al* argue that the quality of delirium care is considered a marker of the quality of wider hospital care.<sup>20</sup>

### Conclusion

Delirium is common, expensive and associated with serious adverse outcomes, yet it is preventable and treatable. The principles of care outlined by the Future Hospital Commission report provide a blueprint for effective, evidence-based delirium care (Table 1). Central to this process is the need to reconceptualise delirium among medical staff and promote attitudinal-based interprofessional teaching interventions to empower the wider multidisciplinary team and encourage ownership of delirious patients. Ultimately, implementing the recommendations from the Future Hospital Commission report will improve delirium care in hospital, as well as reducing the economic and health burden of this vulnerable, but often invisible group of patients. ■

### Conflicts of interest

The authors have no conflicts of interest to declare.

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